

Minutes v3
ASC OP/TF 2 –Committee for Optics and Electro-Optical Instruments – Surface
Imperfections
(Held in conjunction with SPIE Photonics West)
February 2, 2014 10:30- 12:30 PST

Intercontinental San Francisco
888 Howard Street, San Francisco, CA 94103
Nob Hill Room (4th Floor)

1. Welcome and Introductions

Gordon Boulton called the meeting to order at 10:33. In attendance were Trey Turner, Hal Johnson, Dave Aikens, Bill Royall, Donna Howland, Marla Dowell, Walt Czajkowski, Chris Svec, Allen Krisiloff, Dan Palmari and Leonard Hanssen. Everyone introduced themselves. Quorum was established.

2. Approval of the agenda

Hal Johnson motioned to accept the agenda, the motion was seconded by Chris Svec and the motion passed.

3. Approval of the minutes for the August meeting

Allen Krisiloff moved to accept the minutes from the August 2013 meeting, Gordon Boulton seconded and the motion carried.

4. Effort to find and specify a replacement for the 40W bulb

Bill Royall reported that, while 40W bulbs were still available, their fate seems uncertain, and a replacement for our inspection setups seems prudent. Even if they are not obsoleted, the make of different 40W bulbs are different in output anyway, so a replacement makes sense. Chris Svec reported that Northrop Grumman has seen problems with reproducibility between trained and untrained inspectors, having bulbs vary is even worse. **Bill Royall** observed that the original specification was from the Korean War period, and bulbs could well look quite different now than when they were first specified.

Bill Royall said that he had been researching the history to try and get measurement data or other information, and that Leonard Hanssen had given him a name of someone at NIST **Gaithersburg**, but he has not yet had the chance to contact him. Chris Svec announced that Northrop Grumman has switched over to LED based lighting for inspection.

Bill Royall took the action to follow up with NIST and report back at the next meeting.

5. Result of voting of TF2 ballot on OP1.002 v16; discussion

Gordon Boulton presented the results of the recent TF2 ballot on v16. There were 11 favorable votes, and one unfavorable ballot. The unfavorable ballot indicated that the questions 2-8 on the ballot needed to be resolved before we could advance the standard.

Allen Krisiloff walked us through the comment answers to the questions on the ballot. All the ballot question comments, and his responses, as well as replies to the comment forms submitted, are available in the Ballots section of the website, and will be loaded onto the meeting documents section as well.

The group had a long discussion about the question 2A. Although the vast majority of the votes indicated that the provided notation of /M to suspend accumulation and concentration was a good idea, Allen felt that the one negative comment from Trey Turner needed to be considered, and he was inclined to change the draft to eliminate the /M notation, because it opened the door to poor workmanship. No resolution was achieved.

Another long discussion was had regarding question 3, whether the standard should be limited to 1um wide scratches and 10 um wide digs. In the end, several people concluded that it did not make sense to limit the application of the standard, and changed their position. Allen Krisiloff was directed to remove the limitation on sizes.

A similar discussion occurred with the review of question 5, whether the standard should allow magnification. Once again, the committee was swayed by a persuasive argument in favor of the 2009 standard, and the use of up to 4x magnification in the event that the comparison standard could not be seen. Allen was directed to make sure the draft allowed 4x magnification.

In reviewing question 6, we found that the wording of the question was so poor that the yes/no answers were difficult to interpret, and the comments were important. Bill Royall observed that there was an error in the current draft, which made it even more complicated. **Allen Krisiloff agreed to revise the draft in accordance with this issue.**

In discussing question 8, whether the CA should be described as planar, it became obvious that the current draft, which defined scratch length as being projected onto a plane, is problematic. **We should remove this section, and restore the standard to defining scratch length as estimated to be along the optical surface of the lens.**

Finally, Dave Aikens presented his solution to the problem of C7641866. **The comparison standard described in the current version of the drawing** cannot be manufactured by anyone, since the SIRA tool that is specified is not available. Moreover, the SOP at the Army no longer uses the SIRA tool, either. But the idea of creating our own drawing is problematic. Dave Aikens proposed that we simply describe the tolerances in Annex E, with both the SIRA tool settings and the SavvyInspector™ settings for scratches and the diameters and their tolerances for the

digs. In addition, the Annex requires traceability back to the Army limit standards. That way, the Annex can be changed to normative, and anyone can manufacture a compliant comparison standard regardless of the form factor and shape. There was general agreement that this approach was sound, and should be used in the new revision.

6. Any other new business and action items

Dave Aikens passed around the latest **comparison artifact** tool-set for compliance to OP1.002, for both brightness (the Davidson D-668 set) and the dimensional (an illuminated 10x fixed loupe with ANSI dimensional reticle) specification methods.

There was no other new business for the committee.

7. Time and place for next meeting

Allen Krisiloff moved that we next meet by teleconference on April 1st, 2014 at 14:00 EDT. Chris Svec seconded, and the motion carried.

8. Adjourn

At 12:51, Marla Dowell moved we adjourn. Bill Royall seconded, and the motion carried.